

CLAIMS

1. An unbaked laminate for producing a front plate of a plasma display device having a glass substrate having a surface on which a plurality of electrodes are formed, a dielectric layer formed on said surface, and a plurality of spacer layers formed on said dielectric layer, said laminate comprising:
 - a removable support film;
 - a burnable intermediate layer formed on said removable support film, said intermediate layer being water-soluble or water-swellable; and
 - 10 an unbaked dielectric layer formed on said burnable intermediate layer, said dielectric layer consisting of a glass paste material.
2. An unbaked laminate for producing a front plate of a plasma display device having a glass substrate having a surface on which a plurality of electrodes are formed, a dielectric layer formed on said surface, and a plurality of spacer layers formed on said dielectric layer, said laminate comprising:
 - a removable support film;
 - 15 a photosensitive unbaked spacer material layer formed on said removable support film; and
 - 20 a burnable intermediate layer formed on said spacer material layer, said intermediate layer being water-soluble or water-swellable.
3. An unbaked laminate for producing a front plate of a plasma display device having a glass substrate having a surface on which a plurality of

electrodes are formed, a dielectric layer formed on said surface, and a plurality of spacer layers formed on said dielectric layer, said laminate comprising:

- a removable support film;
- 5 a photosensitive unbaked spacer material layer formed on said removable support film;
- a burnable intermediate layer formed on said spacer material layer, said intermediate layer being water-soluble or water-swellable; and
- an unbaked dielectric layer formed on said burnable intermediate layer,
- 10 said dielectric layer consisting of a glass paste material.

4. The unbaked laminate according to any one of claims 1 to 3, further comprising a removable protection film covering a surface of said laminate, said surface being on the other side of said removable support film.

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- 5. The unbaked laminate according to claim 2 or 3, wherein said spacer material layer consists of a photosensitive glass paste material which is capable of being developed by the use of water.

- 20 6. The unbaked laminate according to any one of claims 1 to 3, wherein said burnable intermediate layer comprises a resin selected from the group consisting of a polyvinyl alcohol, a polyvinyl alcohol derivative, a water-soluble cellulose, and mixtures thereof.

- 25 7. The unbaked laminate according to any one of claims 1 to 3, wherein

said burnable intermediate layer has a thickness of 5 micrometers or less.

8. A method for producing a front plate of a plasma display device having a glass substrate having a surface on which a plurality of electrodes are formed, a dielectric layer formed on said surface, and a plurality of spacer layer formed on said dielectric layer, said method comprising the steps of:
 - (a) forming on said surface of the substrate an unbaked dielectric layer consisting of a glass paste material, a burnable intermediate layer which is water-soluble or water-swellable, and a photosensitive unbaked spacer material layer in this order;
 - (b) irradiating said spacer material layer with a patterning light, and developing said spacer material layer, to constitute a patterned spacer material layer;
 - (c) baking said unbaked dielectric layer, said burnable intermediate layer, and said patterned spacer material layer simultaneously, to burn up said burnable intermediate layer and forming said dielectric layer and said spacer layer on said glass substrate simultaneously.
9. The method for producing the front plate of the plasma display device according to claim 8, wherein said step (a) comprises:
 - forming on a removable support film a burnable intermediate layer which is water-soluble or water-swellable, and an unbaked dielectric layer consisting of a glass paste material in this order to prepare a laminate;
 - attaching said laminate on said glass substrate so that said unbaked dielectric layer faces said surface of said glass substrate, said surface having

said electrodes;

removing said removable support film from said burnable intermediate layer, to uncover said burnable intermediate layer; and

forming a photosensitive unbaked spacer material layer on said

5 burnable intermediate layer.

10. The method for producing the front plate of the plasma display device according to claim 8, wherein said step (a) comprises:

10 forming on a removable support film a photosensitive unbaked spacer material layer, and a burnable intermediate layer which is water-soluble or water-swellable in this order to prepare a laminate;

 forming an unbaked dielectric layer consisting of a glass paste material on the surface of said glass substrate, said surface having said electrodes; and

15 attaching said laminate on said unbaked dielectric layer so that said burnable intermediate layer faces said unbaked dielectric layer.

11. The method for producing the front plate of the plasma display device according to claim 8, wherein said step (a) comprises:

20 forming on a removable support film a photosensitive unbaked spacer material layer, a burnable intermediate layer which is water-soluble or water-swellable, and an unbaked dielectric layer consisting of a glass paste material in this order to prepare a laminate; and

 attaching said laminate on said glass substrate so that said unburned dielectric layer faces the surface of said glass substrate, said surface having

said electrodes.